

RIVER DES PERES

ESTABLISHMENT

OF

A SANITARY DISTRICT

RECOMMENDED

BY THE

City Plan Commission

OF ST. LOUIS

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JANUARY 1914

# THE SANITARY DISTRICT OF THE RIVER DES PERES

REPORT OF THE CITY PLAN COMMISSION,  
JANUARY 15, 1914.

*To the Honorable Municipal Assembly of the City of St. Louis—*

*Gentlemen:*

Under Ordinance 25,745, approved March 27, 1911, it is the duty of the CITY PLAN COMMISSION to submit to the Municipal Assembly recommendations for the "control of nuisances", and "to suggest the state and municipal legislation necessary to carry out the recommendations of the Commission."

The Commission unanimously recommends the passage of the ordinance, the draft of which has been approved and transmitted to the Municipal Assembly by the Board of Public Improvements, as the first step to be taken by the City toward the formation of "The Sanitary District of the River des Peres."

## **The State Law.**

The proposed ordinance was drafted by the Law Department of the City in conference with the President of the Board of Public Improvements and the Sewer Commissioner. If it is passed, and if the County of St. Louis takes concurrent action as provided in the state law, the resident voters living within the watershed of the River des Peres will be given the privilege of voting in November, 1914, to create the sanitary district.

The proposed ordinance is based upon an act of the Missouri Legislature passed in 1905,—nine years ago. That act was framed to meet the peculiar conditions of the des Peres watershed, embracing as it does portions of St. Louis City and St. Louis County. It is elaborate in its provisions and represents much study on the part of the framers.

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RIVER DES PERES SANITARY DISTRICT.

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The Commission feels that the resident voters should be given the opportunity to express themselves next November, as the state law provides, and to that end respectfully urges early action on the part of the Municipal Assembly. The proposed ordinance will give immediate effect to the first two sections of the law which are Sections 5687 and 5688 of the Revised Statutes, reading as follows:

**A Petition the First Step.**

"Section 5687. Whenever the construction and maintenance of a common outlet or channel, or of a system of drains or sewers, for the drainage of any area in the State of Missouri, shall become necessary to secure proper sanitary conditions for the preservation of the public health, if such area shall lie in part within and in part without the corporate limits of any city having a population of three hundred thousand or more, said area may be established and incorporated as a sanitary district under this act, in the manner following, to-wit: The mayor and assembly of the city, or the county court of the county, within whose limits any part of such area may lie, or in case the area is situated in part in a city authorized to perform all the functions of a county, and part in a county, both the mayor and assembly and the county court may petition the circuit court or courts having jurisdiction for the appointment of commissioners as hereinafter provided, and to take such further action as may be necessary to the submission to the legal voters resident in such area, of the question whether such area shall be organized and incorporated as a sanitary district under this act. Such petition or petitions, which may be in the form of an ordinance of the city or order of the county court, shall set forth a description in general terms of the territory to be embraced in, and suggest a name for, the proposed sanitary district."

**The Preliminary Survey.**

"Section 5688. The circuit court or courts so petitioned are hereby authorized to appoint three disinterested persons, one of whom shall be a civil engineer or surveyor, as commissioners to lay out and define the boundaries of the proposed sanitary district. Said commissioners may alter or amend the boundaries of the proposed district, as set forth in the petition or petitions, so that it may embrace all of the area capable of

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being efficiently drained by the common outlet or channel, or by the system of sewers or drains, or so as to exclude from the sanitary district any part of the natural drainage area which is so situated as not to be benefited by the proposed sanitary drainage, and for this purpose they shall have power to have made all surveys and maps necessary to locate and describe the said boundaries. Said commissioners shall qualify by taking oath to faithfully and impartially perform their duties, and when so qualified shall give notice by publication at least five times, in one or more newspapers having a general circulation in the proposed district, of the time and place where they will meet to consider and establish said boundaries. Said notice shall be given at least twenty days prior to the meeting, and the meeting place shall be in the court house of the county, or city hall of the city. At the meeting the commissioner first named in the order of appointment shall preside, and all persons residing or owning real property in such proposed district, or adjacent thereto, shall have the right to be heard as to the location of the boundaries of such proposed district; and the commissioners or a majority of them after such hearing shall fix and determine the boundaries of the proposed district. The commissioners may adjourn from day to day until the hearing shall be complete, and for their services shall receive ten dollars per day each, for each day of actual service. They may employ a competent person as stenographer and clerk, whose compensation shall be five dollars per day. The commissioners shall make their report, accompanied by a map or plan showing the boundaries of the proposed district, in relation to the property lines intersected or followed by them, also in relation to the city or county boundaries, to the court or courts by which they were appointed. Said report and map, if approved by the court or courts, shall then be filed in the office of the recorder of deeds for the county or counties, or city, in which the proposed district is situated, and copies of the map with the mayor of the city and with the county court of the respective county or counties."

### **To be Submitted in November.**

"It shall then be the duty of said mayor and county court or courts to submit to the legal voters of the proposed district the question of the organization and incorporation of the proposed sanitary district, with boundaries as determined by the

said commissioners and approved by the said court or courts, at an election to be held on the first Tuesday after the first Monday in November thence next ensuing; notice whereof shall be given as required by the statutes of the State of Missouri regarding the election of county officers. Polls shall be opened, so far as practicable, at or near the usual polling places at general elections. Votes shall be received and counted by three persons at each polling place, chosen from their number by the lawfully qualified electors resident in the proposed district, not less than nine in number present at any poll. The returns of the vote, certified to under oath by those who receive and count the vote, shall be made to the Secretary of State of the State of Missouri, who shall ascertain and declare the result. Each legal voter resident within such proposed sanitary district shall have a right to cast a ballot at such election, with the words thereon: "For sanitary district," or "Against sanitary district." If a majority of the votes cast shall be "For sanitary district," such proposed district shall thenceforth be deemed an organized sanitary district under this act."

#### **A Board of Trustees.**

"When the board of trustees hereinafter provided for shall be appointed and organized, such sanitary district shall be considered in law and equity a body corporate and politic, known by the name and style of "The sanitary district of.....," and by such name and style may sue and be sued, contract and be contracted with, acquire and hold real estate and personal property necessary for corporate purposes, and adopt a common seal. All courts in this state shall take judicial notice of the existence of all sanitary districts organized under this act. If the proposition to establish the sanitary district is carried, the cost of all preliminary proceedings shall be borne by the district; if it is defeated, all costs of court, of commissioners and of the election shall be borne by the city and county, if of independent jurisdiction—each being liable for all expenses in regard to proceedings under its petitions. If its jurisdiction is single, the county court shall pay for all said expenses. When a natural drainage area includes territory lying in part in a county and in part in a city exercising the functions of a county, or in two or more counties, then the proceedings hereinbefore prescribed shall state that the proposition is to unite the parts so situated

in independent jurisdictions into a single sanitary district; and if the proposition is carried by a majority vote in each of the parts, then the district shall be united and organized as described in said proceedings, and the circuit court having jurisdiction over the major part of the area included in the district so organized, shall have and is directed to exercise jurisdiction in all cases or questions arising out of the organization of the district, or from the acts of the board of trustees thereof."

### **The Sewer Commissioner's Investigation.**

According to a preliminary survey made by the Sewer Department of the City of St. Louis, the watershed of the River des Peres comprises about 67,000 acres, of which approximately 15,000 are in the City of St. Louis and 52,000 in St. Louis County. According to this official data the watershed of the River des Peres in St. Louis County is divided practically into three subdivisions:

Gravois Creek empties into the south side of River des Peres about Alabama Avenue; fourteen blocks west of the Mississippi River. Gravois Creek drains the neighborhoods and communities of Luxembourg, Sappington, Afton, part of Kirkwood, Woodlawn and Oakland.

What is known as the west branch of the River des Peres empties into the main stem of the River des Peres at the suburb known as Greenwood. This branch of the River des Peres drains Maplewood, Greenwood, Old Orchard, Webster Park, Webster Groves, Tuxedo, Dwyer, Maddenville, Mentor and part of Clayton. The west branch is the route of the Creve Coeur branch of the Missouri Pacific.

The main stem of the River des Peres enters the city through the corner of the old Delmar race track. It drains University City, Brentmoor, Wellston, Olivette, Central, Elmwood Park and Stratman.

### **What the City Has Done.**

The city has already constructed a foul water sewer 32,900 feet or about six miles in length along the lower section of the River des Peres. This foul water sewer begins at the Mississippi River at the foot of Catalan Street. In the first section

its dimensions are 10 by 12 feet. There are half a dozen sections of this foul water sewer. The size of the sewer diminishes until at Greenwood, the junction of the two branches of the River des Peres, the sewer is six feet in diameter.

The city has also constructed a foul water sewer where the main stem of the River des Peres enters the city limits in the corner of the old Delmar race track. This is a comparatively small sewer. It follows the channel of the River des Peres to a point in Forest Park opposite Union Avenue entrance where the foul water is lifted by pump into the Pine Street sewer. A considerable part of this foul water comes from St. Louis County.

The distance from the lower end of the upper section of the River des Peres sewer in Forest Park to the upper end of the lower section at the junction of the River des Peres and the west branch is about 4.3 miles. The sewage flowing along this central portion of the route both from the city and county is entirely in the open.

The lower section of the River des Peres sewer, from Greenwood to the foot of Catalan Street, cost about \$900,000.

### **The Problem of Storm Water Floods.**

In St. Louis County six thousand acres of farm land were sub-divided into town lots between 1900 and 1910. These are United States census figures. Since 1910 the transition from farm land to town lots has been much more rapid. Most of these sub-divisions are within the des Peres watershed.

Every acre of farm turned into city lots not only means more sewage, but the streets, sidewalks, gutters and alleys mean more rapid drainage of storm water. Comparative experiments in Forest Park and in city blocks show that the volume of storm water draining from city blocks is twice as great as that draining from the same area of park. The growth of the City of St. Louis has overtaxed in places the sewer system because of the rush of storm water over paving. What is true of the city generally is becoming more impressive yearly within the limits of the des Peres watershed. Across the city line a heavy rainfall in St. Louis County means now the overflow of the banks of the River des Peres within the city, consequent damage to property and litigation for the city. This condition is becoming

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more aggravated every year as the area of street, sidewalk and alley paving extends.

The sections of foul water sewer along the River des Peres are expedients to meet the most pressing emergency. The disposition of drainage for the entire watershed should be treated as one great problem, taking into full consideration the rapid change from rural to urban conditions.

### **A Metropolitan Sewer System.**

For the proposed action by St. Louis City and St. Louis County there is a precedent supplied by Boston. That city twenty-five years ago was confronted with a like problem. It was necessary to do something about the sewage of the communities lying beyond the boundaries of Boston and draining into the Mystic and Charles River Valleys lying partly within the area of Boston. An act of the legislature or general court of Massachusetts created the Metropolitan Sewer Commission of three members and gave it power "to construct, maintain and operate for the cities of Boston, Cambridge, Somerville, Malden, Chelsea, Woburn, and the towns of Stoneham, Melrose, Winchester, Arlington, Belmont, Medford, Everett and Winthrop, such main sewers and other works as shall be required for a system of sewage disposal for said cities and towns."

This board represented the State of Massachusetts and was given general powers in the matter of harmonizing the local sewer systems and creating a general system to cover the several cities and towns within the district. From time to time successive acts of the legislature or general court were passed extending the Metropolitan Sewage System as the population increased.

### **St. Louis County's Marvelous Development.**

The progress of change from rural to urban conditions in St. Louis County is strikingly shown by official reports. According to the Government census four years ago the population of St. Louis County was 82,417. That was an increase of 64% from 50,400 in 1900. If the rate has been kept up, and the probability is it has increased, St. Louis County today has more than 100,000 population.

It is notable that the principal increase is within the des Peres watershed. Central Township, which lies almost wholly within the watershed, increased from 18,055 in 1900 to 38,676 in 1910.

The census of 1900 gave the valuation of land per acre in St. Louis County at \$100.56. In 1910 this valuation had increased by one-half to \$150.90.

The land valuation in St. Louis County, according to the Government census in 1910, was \$48,173,219. The chief growth of population in St. Louis County has been recent. From 1880 to 1890 the county increased in population less than 5,000; from 1890 to 1900 the increase was less than 15,000, while from 1900 to 1910 the increase was over 30,000.

#### **St. Louis County Cities.**

The incorporated communities of St. Louis County showed the marvelous increase of 396 per cent from 1900 to 1910. These cities, with but one or two exceptions, lie within the watershed of the River des Peres and their sewage must be cared for in the des Peres Valley.

The land area of St. Louis County is 311,680 acres. More than one-sixth of this area is within the des Peres watershed and must be drained through the sewer system of St. Louis. Of the area of St. Louis County 64,572 acres were not classed by the census of 1910 as farm land; that is to say, four years ago more than one-fifth of St. Louis County had ceased to be farm land.

#### **St. Louis County Farms.**

In respect to the farms of St. Louis County the census figures show a notable change bearing directly upon this question of drainage. The number of farms increased largely within the decade 1900-1910. There were in the latter year many more small farms of from five to ten acres indicating rapid subdivision of the larger holdings with increasing sewage to be disposed of. In the consideration of the drainage problem small farms are to be considered as large city lots. St. Louis County in 1910 had 37 "farms" under three acres, 429 under ten acres, 583 under twenty acres and 1305 under fifty acres.

The land area of St. Louis County is 311,680 acres. Of this 247,108 acres were farm land in 1910, a reduction from 253,065

in 1900. The difference represents the transformation of acreage into town property during the decade. But according to the Government the classification of 247,108 acres of farm in St. Louis County does not mean that amount of improved or tilled land. The improved farm land in 1910 was 193,181 acres. The farm land of St. Louis County in 1910 embraced 46,941 acres of forest and 6,986 of other uncultivated land. The average size of the St. Louis County farm in cultivated land was under fifty acres, or to be exact, 47.7 acres.

#### **Other Sections of the State Law.**

If the resident voters of the des Peres watershed vote to establish the Sanitary District of the River des Peres three trustees will be appointed, one by the County Court of St. Louis County, one by the Mayor of St. Louis with the approval of the Council and one by the Circuit Court having jurisdiction over the major part of the territory, which would be the Circuit Court of St. Louis County. The third appointee must be "a civil engineer of good repute in his profession and a recognized expert in matters of drainage." This appointee of the Circuit Court will be president of the board and its executive officer. For their services the three trustees will be paid on a per diem basis fixed by the Circuit Court of St. Louis County. The methods of procedure by the trustees are set forth elaborately in thirteen sections of the state act. One section provides for the raising of a special drainage tax within the district, the amount of which shall not exceed one-half of one per cent on the assessed and equalized valuation of such land for that year. This tax will be collected by the same officers and by the same methods as provided for state and county taxes. The amounts collected will be paid into the treasury of the city and county and be credited to a special fund.

Section 5693 makes it the duty of the trustees to "conduct the necessary surveys, map out and define the several drainage areas in the district and to lay out a general plan for the drainage thereof."

Section 5694 provides for the condemnation of private property, "if in the judgment of the board of trustees it is necessary to acquire rights of way or easements for drainage purposes, through private property"; or said board may obtain the same by purchase, gift or otherwise.

**Local Sewer Systems Encouraged.**

Under section 5697 the local authorities of any city or incorporated town or village or the county court or individual owners or associations of owners shall have the right to construct sewers or drains in the district at their own expense, but the plans for such sewers and drains must conform to the plans adopted by the Board of Trustees.

Under Section 5699 the board of trustees or the authorities of the city, town or village, or the county court shall have the power to accept from private persons or corporations any sewers or drains constructed by them before or after the organization of the sanitary district and to allow an equitable credit for any such sewers or drains.

Section 5698 contemplates the organization of sub-districts as a part of the sanitary district, a sub-district not to exceed one thousand acres in area. A sub-district may be created on the petition of a majority of the resident tax-payers within the sub-district. The cost of construction of sewers in the sub-district shall be met by special tax bills issued against each lot or parcel of ground drained or drainable by the sewer or the portion of such lot or parcel lying within two hundred feet of the center line of such sewer. The special tax bills may be paid in instalments if the property owner so petitions and the number of instalments shall not be more than five.

**St. Louis County Communities Interested.**

At the present time one of the communities of St. Louis County has connected its sewer system with the city sewer system. The sewage of this St. Louis County community is carried without cost to the community through the city sewer system. It is pumped by the city to a higher level to carry it over the divide and discharge it into a sewer running to the Mississippi. All this is necessary to avoid pollution of Forest Park.

Two other St. Louis County communities have within the past few weeks asked the Sewer Commissioner of the city to find a way in which, by the payment of an agreed amount, they may connect their sewers with the foul water sewer in the lower River des Peres Valley.

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Still other St. Louis County communities resort to septic tanks, or run their sewers to sink holes, or empty their foul water in creeks which are branches of the River des Peres.

The situation in general is one which invites continuously an epidemic of typhoid. Such a visitation would depreciate values in St. Louis County to an amount many times beyond the cost of establishing the sanitary district, not to speak of the needless suffering and loss of life.

Respectfully,

C. P. WALBRIDGE, Chairman.

J. H. GUNDLACH,

SAM LAZARUS,

ANDREW GAZZOLO, Jr.,

E. R. KINSEY,

C. M. TALBERT,

DWIGHT F. DAVIS

JAMES N. McKELVEY,

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HUGO A. KOEHLER,

COLIN M. SELPH,

CHAS. A. STIX,

JAMES C. TRAVILLA,

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Secretary.

January 15, 1914.

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